[sample] repertoire of [nucleic acid containing target] sequences, [and using forward and back primers in the copying and cloning of the target sequences for expression of a repertoire of proteins] each sequence in said repertoire of sequences comprising [at least part of] an immunoglobulin V gene, using [variable domain, the] (i) a forward primer [being] specific for a sequence at or adjacent to the 3' end of the sense strand of each [of the target] sequence of said repertoire of sequences, [the] and (ii) a back primer [being] specific for a sequence within and at or adjacent to the 3' end of the antisense strand of each [of the target sequences] immunoglobulin V gene.

34. (Amended) A method according to claim 33 which method comprises:

(a) [providing a sample repertoire of double-stranded nucleic acid containing sequences;

(b) causing] separating the two strands of each of a repertoire of [the] double-stranded nucleic acid sequences [to be separated];

[(c)] (b) annealing to [the sample a] each sequence of said repertoire of sequences said forward and [a] said back [oligonucleotide] primer[, the forward primer being specific for a sequence at or adjacent the 3' end of the sense strand of each of the target sequences, and back primer being specific for a sequence at or adjacent the 3'

end of the antisense strand of each of the target sequences], under conditions which allow the primers to hybridize specifically to [the] said nucleic acid sequences;

[(d)] (c) treating the annealed sample with a DNA polymerase enzyme in the presence of deoxynucleoside triphosphates under conditions which cause primer extension to take place, thereby producing double-stranded nucleic acid;

[(e)] (d) repeating steps [(b) to (d),] (a) to (c), thereby producing some double-stranded DNA (product DNA) containing only [the target] said sequences;

[(f)] (e) cloning product DNA into expression vectors for expression of a repertoire of proteins [each comprising at least part of an immunoglobulin variable domain].

35. (Amended) A method according to claim 34 wherein steps [(b) to (d)] (a) to (c) are repeated a plurality of times before step [(f)] (e).

36. (Amended) A method according to claim 33, which comprises:

(a) [providing a repertoire of mRNA;

(b)] annealing to [the] a repertoire of mRNA sequences an oligonucleotide primer specific for a sequence at or adjacent the 3' end of each of sequences [the target] said

sequences on the sense strands, under conditions which allow the primer to hybridize specifically to the nucleic acid;

[(c)] (b) treating the primer-annealed mRNA with a polymerase enzyme in the presence of deoxynucleoside triphosphates under conditions which cause primer extension to take place, thereby producing antisense cDNA;

E1 cont'd

[(d)] (c) annealing to the cDNA an oligonucleotide primer specific for a sequence at or adjacent the 3' end of each of [the target] said sequences on the antisense strands, under conditions which allow the primer to hybridize specifically to the nucleic acid;

[(e)] (d) treating the primer-annealed cDNA with a polymerase enzyme in the presence of deoxynucleoside triphosphates under conditions which cause primer extension to take place, thereby producing double-stranded DNA (product DNA);

[(f)] (e) cloning product DNA into expression vectors for expression of a repertoire of proteins [each comprising at least part of an immunoglobulin variable domain].

E2 37. (Amended) A method according to claim 36 wherein, after step [(e)] (d) the following steps are performed before step [(f)] (e);

(i) [causing] separating the two strands of the product DNA [to be separated];

(ii) annealing to the separated strands [a] said forward primer and [a] said back [oligonucleotide] primer[, the forward primer being specific for a sequence at or adjacent the 3' end of the sense strand of each of the target sequences, the back primer being specific for a sequence at or adjacent the 3' end of the antisense strand of each of the target sequences], under conditions which allow the primers to hybridize specifically to the nucleic acid;

(iii) treating the annealed sample with a DNA polymerase enzyme in the presence of deoxynucleoside triphosphates under conditions which cause primer extension to take place, thereby producing double-stranded nucleic acid.

Claim 39, line 1, delete "the sample" and insert --said--.

Claims 42, 43 and 44, line 1 of each, delete "the sample" and insert --said--; after "acid" insert --sequences--.

Claim 45, line 1, delete "33" and insert --34--; delete "the target" and insert

--said--.

Claim 46, line 1, delete "the" and insert --said--.

Claim 47, line 1, delete "33" and insert --34--; after "wherein" insert --said--.

Claims 48, 49, 50, 51 and 52, line 1 each, delete "33" and insert --34--; delete "the" and insert --said--.

Claim 53, line 1, delete "33" and insert --34--; after "wherein" insert --said--.

Claim 54, line 1, delete "the" and insert --said--.

Claim 55, line 1, after "wherein" insert --said--.

Claim 56, line 1, delete "the" and insert --said--.

E3

57. (Amended) A method according to claim 33 wherein [the] <u>said</u> forward <u>primer is a single oligonucleotide</u> and <u>said</u> back [primers are provided as single oligonucleotides] <u>primer is a single oligonucleotide</u>.

Claims 58 and 59, line 1 of each, delete "the" and insert --said--; delete "primers are" and insert --primer is--.

Claims 62 and 63, line 1 of each, delete "the" and insert --said--.

Kindly add the following new claims:

-- 64. A method as in claim 33 wherein said forward primer is specific for a sequence at or adjacent to the 3' end of the sense strand of the immunoglobulin V gene.

E4

65. A method as in claim 33 wherein said forward primer is specific for a sequence at or adjacent to the 3' end of the sense strand of the immunoglobulin variable domain. --

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested.

Applicants' undersigned attorney wishes to express appreciation to Examiner Ketter and Examiner Schwartz for their time and thoughtful consideration of the issues during the interview of May 2, 1995, and to Examiner